August 1, 2016

Marlene H. Dortch
Office of the Secretary
Federal Communications Commission
445 12th Street SW, Room TW-A325
Washington, DC 20554

Re: Gorman-Redlich waiver request of some CAP-to-EAS rules (July 25, 2016)

Dear Marlene H. Dortch:

I would like to comment on the partial waiver request by Gorman-Redlich of certain parts of the FCC rules contained in §11.56 (a) (2) regarding the processing of Common Alerting Protocol (CAP) messages into SAME encoded messages that comply with the Emergency Alert System (EAS) protocol.

I am not an FCC accredited testing lab nor a licensed Professional Engineer. The following are comments based on personal testing.

Gorman-Redlich did not identify which legacy EAS devices it intends to support with the waiver. I tested an original Sage ENDEC 1822 EAS device (ROM version 6.2), also known as the "grey" box, using both the new 000000 location code and local FIPS location codes with the NPT and EAN event codes. I tried several different permutations of EAN, NPT, other event codes and national and local FIPS codes. I also tested the EAN priority override of an in-progress of a NPT.

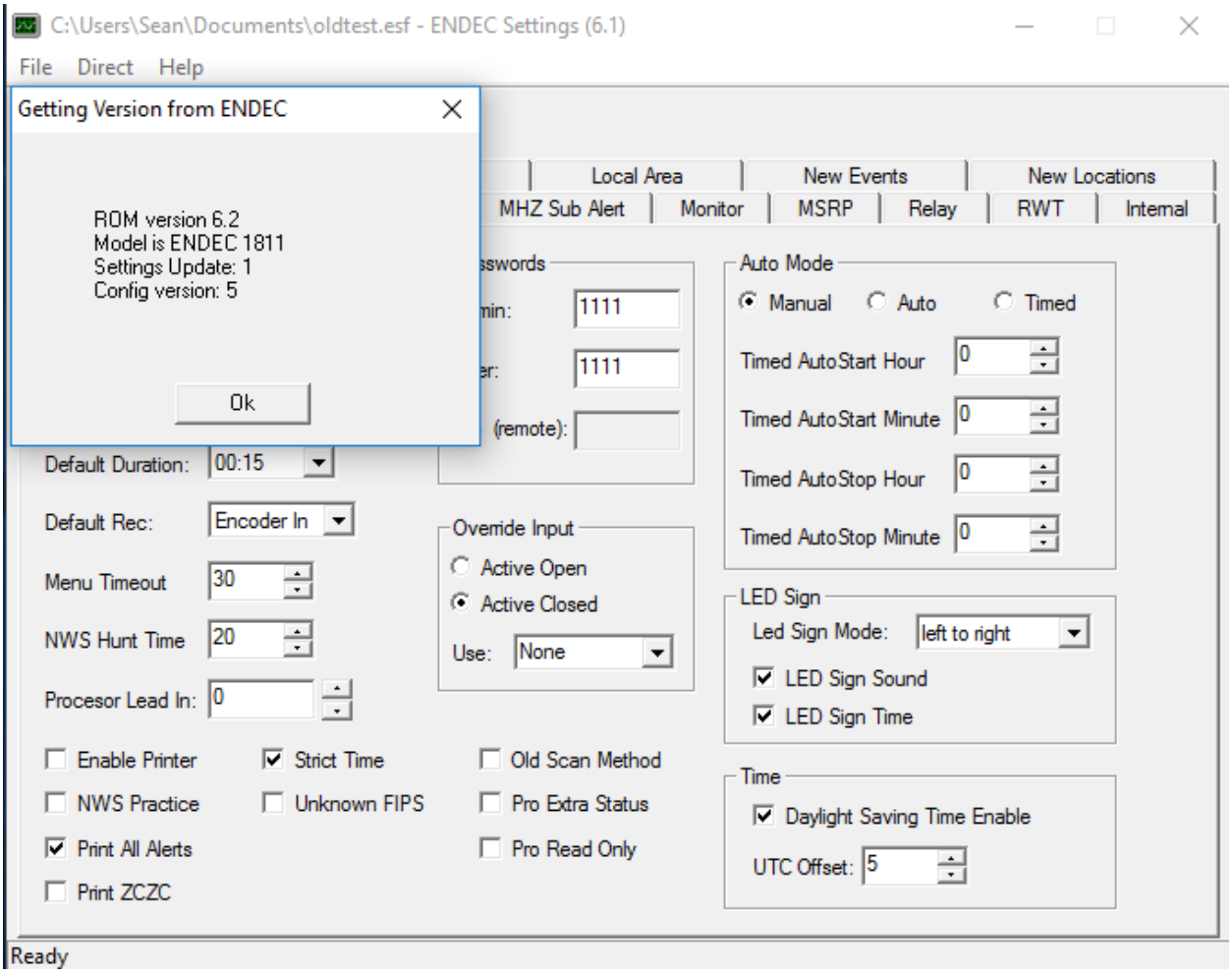

Figure 1 - ENDEC 1822 Version

I found with my personal testing using the "All Locations" filter with NPT, the Sage 1822 will relay NPT messages with the national 000000 location code, as well as any local FIPS code. It correctly translates the location 000000 as "United States" in logs and crawls, and translates local FIPS codes appropriately.

However, there are several limitations and non-strict adherence to all new EAS rules. For example, when the Sage 1822 forwarded an EAN with both the 000000 and local FIPS code, it translates all locations as “the United States.” The filters can't have a specific FIPS code and 000000. This means you can't relay only All U.S. and only your local FIPS area. If you use a local FIPS code, you will miss the All U.S. NPT. If you use "All Locations," you will relay NPT messages for All U.S. (000000), as well as every NPT regional message for every other FIPS code.

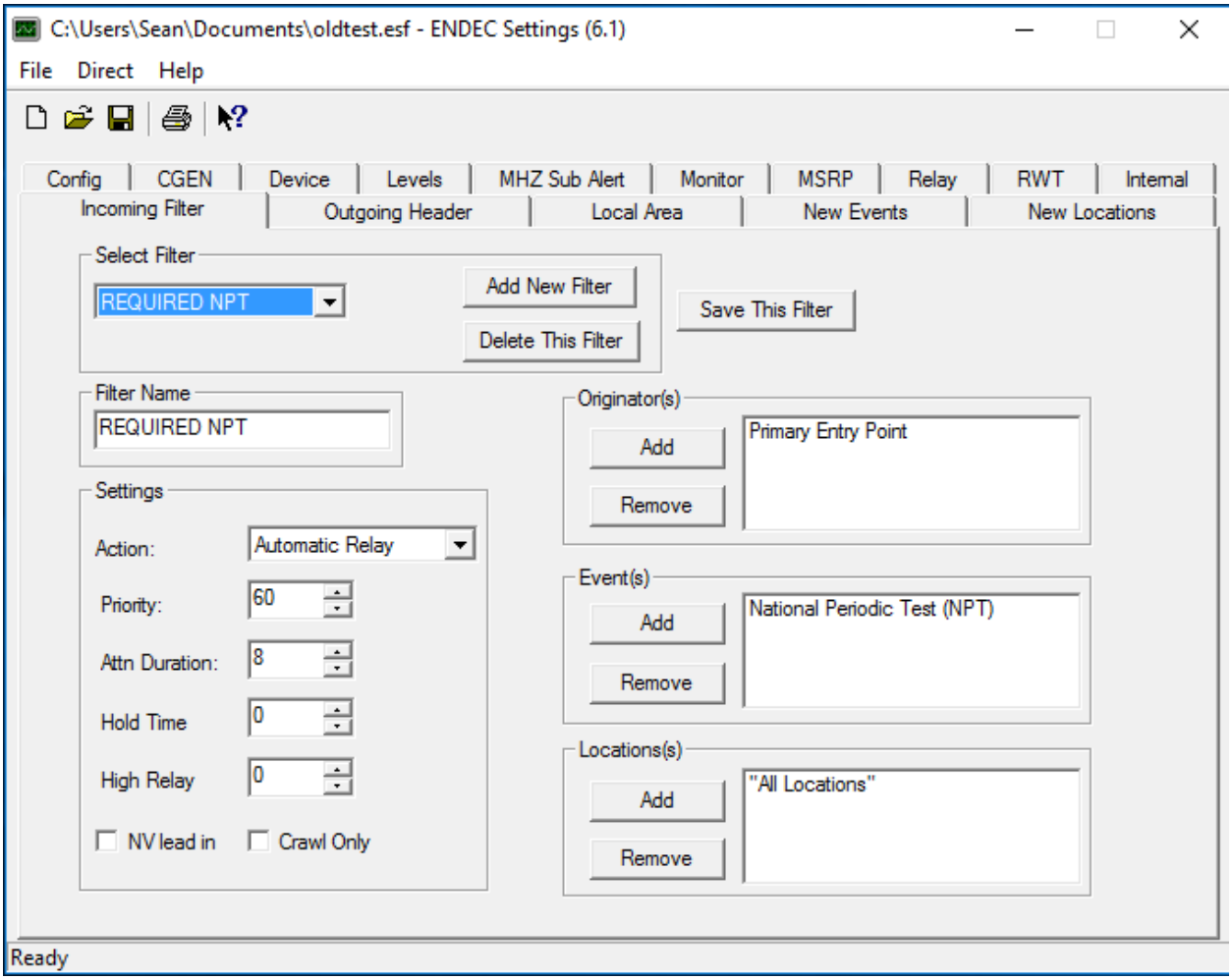

Figure 2 - ENDEC 1822 NPT Configuration

Re-writing the EAS header by adding the state FIPS code would not address other issues with legacy EAS devices. How fast does "immediate" relay mean? How to override hold-off tally switches? Translating local FIPS codes for EAN instead of translating all FIPS locations as United States?

Given those limitations, it may be possible to use a CAP-to-EAS Converter without granting Gorman-Redlich's waiver request to change the locations included in the converted EAS header with a few constraints.

1. ONLY leaf-node Participating National stations, not acting as Primary or Relay station for other downstream stations.
2. Can NOT use a hold-off tally switch or similar delay features

3. ONLY monitor Local Primary EAS sources and the National Weather Service which filter regional EAN and NPT messages. It cannot monitor any PEP source directly (i.e. a NPR squawk channel or an LP which is also a PEP).
4. Use a CAP-to-EAS intermediary device which ONLY relays EAS messages with All U.S. or local FIPS codes, but not EAS messages for other regions, because the EAS device does not filter out-of-region EAS messages. The CAP-to-EAS device should not change, add, or remove FIPS codes in the converted EAS header, which may disrupt or confuse the EAS de-duplication protocol if the message is accidently re-distributed.

It is not clear how many legacy EAS devices or participants would be impacted by this waiver. The FCC may learn from EAS Test Reporting System (ETRS) registration information how many legacy devices are still in use.

Beyond the waiver request, legacy EAS devices are still useful for monitoring and verification of EAS signals by emergency managers and station engineers. Legacy EAS devices are also useful as a backup EAS device for originating EAS messages by state/local emergency managers, even though they may not be able to originate a “national” EAS message or meet all current EAS rules. The FCC should not prohibit the “off-label” use of legacy EAS devices by emergency managers and station engineers, as long as it does not disrupt or create confusion during national EAS operations.

If you have any questions concerning these comments, please do not hesitate to call (703-892-1810) or email (sean@donelan.com) me.

Respectfully submitted,

Sean Donelan